

STORER (M.)



# ICHTHYOL IN GYNECOLOGY.

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## ICHTHYOL IN GYNECOLOGY.

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SUFFICIENT time has now elapsed since the introduction of this drug to form some judgment as to its value in the treatment of diseases of women. While many foreign writers have given us the results of their experience, so little has appeared in this country on the subject that I feel justified in laying it before you.

Much, apparently with justice, has been claimed for ichthyol in other departments of medicine; the question of its value in gynecology has been somewhat vexed, and it may be of interest to give a brief resumé of the results of some other observers, and see how closely they are borne out by personal experience.

The characteristics of the drug generally employed—the sulpho-ichthyolate of ammonium—probably are well known to you. Suffice it to say that it is obtained from a fossil fish deposit, and is a thick brown liquid, with a smoky and to some a highly offensive odor. It is soluble in water, in a mixture of alcohol and ether, in oils, glycerine and fats, and contains about 15 per cent. of sulphur, very intimately combined.<sup>1</sup> Discovered by Schrötter,<sup>2</sup> it was introduced to the profession by Unna in 1883, and its success in certain inflammatory dermatological conditions soon brought it into great vogue. Unna's theory of its action was that by its reducing power it deprives the endothelium of the bloodvessels of oxygen, and so causes them

<sup>1</sup> Lurtigau, *Gaz. des Hop.*, 1837, p. 165.

<sup>2</sup> Schrötter, *Monatschrift f. Prakt. Dermat.*, 1882.

to contract. While this view is vigorously combated, no better one has been proposed. (See Elliott.)<sup>1</sup>

Its use in Gynecology was first suggested by Freund in 1890.<sup>2</sup> He claimed surprisingly quick and complete cures in many cases of chronic parametritis, chronic and subacute perimetritis, with exudation and adhesions, cicatricial atrophy of the vagina and cervix, chronic metritis and tubo-ovariitis. He also found it valuable for pruritus and cracked nipples, and relieved a case of catarrh of the large intestine with suppositories. His method in severe cases was to introduce the drug into the system in a variety of ways, using all of the following:—sugar-coated pills containing 1½ minim, two to eight daily; salve, 10 per cent., for inunction on abdomen; rectal suppositories, containing three minims; ichthyol-glycerine tampons, five per cent.

He claimed, first, an extraordinary resorbent action, and secondly, great analgesic power. Subsequent investigators all admit its analgesic qualities, but that it also promotes absorption is as stoutly denied by some as it is maintained by others.

Following these lines, Reitmann and Schönauer<sup>3</sup> reported on its use in one hundred inflammatory cases, with most gratifying results as regards pain, remarking that the property of promoting absorption also deserves particular mention. Shortly afterwards Block<sup>4</sup> gave his results. He too was an enthusiast, and was the first to apply pure ichthyol to the endometrium. He was convinced of its resorbent as well as anodyne action. Great improvement was noticed in cases of acute vaginitis and chronic metritis with venous engorgement. That its effects were not due to the use of a glycerine solution he proved by a series of

<sup>1</sup> New York Med. Rec. 1887.

<sup>2</sup> Freund, Berl. klin. Wochenschrift, 1890, No. 11 and No. 49.

<sup>3</sup> Reitmann and Schönauer, Wien. klin. Wochenschrift, 1890, No. 23.

<sup>4</sup> Block, Wien. med. Wochenschrift, 1890, No. 50.



control experiments with pure ichthyol, and stated his belief that the pure drug was more efficient than the glycerine solution.

Kötschau,<sup>1</sup> in fifty-six cases of endocervicitis and endometritis, of one hundred and twenty-seven in which he used ichthyol, in the severer cases combined a preliminary curetting with the iron, massage and douches which he employed in addition to local treatment, and while treatment with other means gives about the same proportion of cures, he regards ichthyol as much safer. But when he speaks of it as a "sovereign remedy for endometritis," one must not be blind to the fact that many of the cases were previously curetted. In fifty-two cases of afebrile perimetritis he was satisfied that tampons of ichthyol-glycerine with ichthyol pills and hot sitz baths produced a cure more promptly than any other treatment, pain being often relieved by the first application, and the exudate quickly disappearing.

Thus far all testimony has been favorable. But in 1891 Oberth,<sup>2</sup> of Chrobak's clinic, from the study of forty-two cases, concluded:—

1. That the salve had absolutely no power of controlling pain.

2. That while the pills were usually, though not always, well borne, no improvement in appetite or general condition followed that could be ascribed to them.

3. That the suppositories had a negative effect as regards tenesmus, and that they sometimes irritated the rectum.

4. That while pure ichthyol applied to the catarrhal mucosa or eroded os would often produce a cure, the results were by no means as good as those obtained by the older astringents.

The only good of the tampons he believed came from the

<sup>1</sup> Kötschau, *Mun. med. Wochenschrift*, 1891, No. 1.

<sup>2</sup> Oberth, *Wien. klin. Wochenschrift*, 1891, No. 16.

glycerine they contained, and while granting a certain influence against pain denies absolutely any resorbent action.

Pee<sup>1</sup> arrived at the same conclusions, holding that it should be used only symptomatically for pain, and warning that its intra-uterine use might be followed by severe hemorrhage. In the discussion that followed his paper, Veit, Winter, Schaffer and Bokelmann coincided with the reader.

Egasse,<sup>2</sup> in 1891, remarks that in France the claims of Freund have not been substantiated, and that at Auvard's clinic it has been abandoned.

Jadassohn<sup>3</sup> used it in thirty-seven cases of gonorrhœa, using a one to ten solution, and regards it as more efficacious than even nitrate of silver in the acute stage. Similar good effect was observed by Bloch, but denied by Pee. Later, Columbini<sup>4</sup> and Jullien<sup>5</sup> reported its very successful use in this disease.

Herff<sup>6 7</sup> is a strong opponent of its having other than excellent analgesic qualities. He discards its internal use as irrelevant, and the salve as merely a form of massage.

Hermann,<sup>8</sup> on the other hand, from one hundred and fifty cases in which ichthyol alone was used, either pure or in watery solution, finds that it has a distinct resorbent action, and even regards it as a sufficient means whereby to establish a diagnosis between carcinoma and inflammatory induration, as the latter is so quickly controlled by its use.

Schultz<sup>9</sup> thinks it of great value in chronic inflammatory conditions.

<sup>1</sup> Pee, *Zeitschrift f. Geb. u. Gyn.*, 1891, No. XX.

<sup>2</sup> Egasse, *Bull. de Ther.*, Paris, 1891, CXXI.

<sup>3</sup> Jadassohn, *Deutsche med. Wochenschrift*, 1892, 38.

<sup>4</sup> Columbini, *Am. J. Obst.*, Ap., 1894.

<sup>5</sup> Jullien, *Med. Week*, Ap., 1894.

<sup>6</sup> Herff, *Mun. med. Wochenschrift*, 1891, p. 313.

<sup>7</sup> " " " " 1892, p. 941.

<sup>8</sup> Hermann, *Centralbl. f. Gyn.*, 1892, 50.

<sup>9</sup> Schultz, " " 1893, No. 38.

Polacco,<sup>1</sup> from nine hundred and seventy-two cases observed in Mangiagalli's clinic, states decidedly that it is the most positive local analgesic known in gynecological therapeutics, and that furthermore it has an undoubted resorbent action in cases of pelvic exudates, and in a subsequent paper<sup>2</sup> he remarks that all authorities admit this. I have shown that they do not by any means all do so.

Albertolelli<sup>3</sup> practically had the same experience as the last writer. He regarded it as especially well adapted to intra-uterine injection, greatly preferring it to tr. iod.

At the risk of being tedious I have given a hint at most that has thus far appeared on the subject, chiefly to show that such opposed results could be obtained by observers employing much the same methods. Two years ago my interest in the subject was awakened, and suspecting that some of these results might possibly be biassed, I have tried to be entirely fair. While I greatly regret that I have not been able to follow all my cases as closely as desirable, from what I have seen I feel justified in drawing quite definite conclusions.

While of course occasional applications have been made in a much larger number of cases, it was used with more or less faithfulness in about one hundred and twenty, but as many of these were in the out-patient clinics at the Carney and St. Elizabeth Hospitals, owing to the exasperating irregularity of the attendance of the average out-patient as soon as somewhat relieved, it would be impossible to say just which cases deserved to be included in tables, so I will attempt no statistics, but merely state the impressions I have drawn from its use.

Without going into the finer distinctions of pelvic pathology, I would say that in cases of moderately acute pelvic

<sup>1</sup> Polacco, *Centralbl. f. Gyn.*, 1891, No. 50.

<sup>2</sup> Polacco, *Am. J. Obst., Ap.*, 1894.

<sup>3</sup> Albertolelli, *Am. J. Obst., Ap.*, 1894.



inflammation, with much pain, but where an operation did not seem indicated, or where one if advised was refused, the method pursued was as follows:—Every third day after carefully drying the vagina, its vault was freely painted with ichthyol-glycerine, 10 per cent., or with pure ichthyol, followed by a pad soaked in the solution, which in turn was guarded by a dry pad to protect the clothing. In addition to this, full hot douches were sometimes employed. Some cases where they were not used improved quite as rapidly as the others. In perhaps a dozen cases ichthyol pills were given. No discomfort from them was noticed, except one or two dyspeptics complained of the taste of the eructations. Von Nussbaum took fifty pills a day with no bad effects. Baumann says that doses of from three to five drachms daily cause merely copious watery discharges. On the other hand I cannot say that any of the patients taking the pills seemed materially the better for them. In nearly all the appetite improved, but this may have been due to improvement in the general condition. In six cases of deep seated pelvic pain the ointment was tried, and possibly the very slight but positive relief that was observed may have been due to massage.

In a number of cases I used a suppository containing  $\eta$  iii. which was allowed to dissolve in the vagina every night, with very satisfactory results, and now I frequently order them. Care should be taken that in such suppositories the drug is thoroughly mixed with the vehicle, and not merely enclosed in a capsule as is a favorite practice in France. I regard it as distinctly undesirable that the pure drug should be used for any length of time without the physician's control.

Looking back on this class of cases, I can only say that they seemed to improve faster than where other methods were employed. The relief to sharp pain was fairly constant and immediate, and in a few cases a single application



gave almost entire relief. To be sure, sometimes a single painting with some other drugs has a very prompt action, but I do not think quite so often. Dull aching pain was not so easily reached, but it was the exception that some relief was not experienced after a number of applications. I found rather better results to follow the use of the pure drug than did that of the glycerine solution, although care had to be taken not to desquamate the vagina—a result which sometimes follows also the over-enthusiastic use of tr. iod.

Admitting its anodyne effect, the following case will show that it also sometimes has a resorbent action :

E. R., first seen Sept., 1892. Twenty-five. Married 8 years. Two children, the youngest five. Neither labor instrumental, but a somewhat long puerperium after the last. Since then three miscarriages. Has not been well since the last miscarriage in March, 1892.

Three weeks later had an offensive discharge for a few weeks. Early in July had an attack of severe abdominal pain, and a pelvic abscess was opened by the vagina, but soon allowed to close up. A month later had a return of the pain, amounting to agony when the bowels moved. Catamenia were fairly regular, but not marked by any great increase in the pain. When first seen she was in good general condition, except for a slight afternoon rise in temperature. The posterior vagina and both sides of the pelvis were filled by a very hard board-like mass, in which nothing definite could be made out. In fact its hardness was such that a previous examiner had been led to make the diagnosis of malignant disease. There was exquisite local tenderness. The patient was put on applications of thiol, which is practically the same as ichthyol, alternating with the latter, with hot douches, which she had been taking previously. After ten days' treatment the mass was much softer and less tender, and the pain had vanished. Defecation even was now painless. After a month the uterus was easily felt anteriorly, and it was fairly movable, while to the left and posteriorly was felt a soft, enlarged and fluctuating tube, and behind the uterus a tender and indurated ovary closely connected with a hard mass filling the right pelvis. Improvement continued under treatment, and the patient was subjectively perfectly well until September, 1893, when the old symptoms returned, and the pelvis was again found filled with exudate. This time the pain was controlled by a single application, and a week

later the anatomical condition was much improved. In October catamenia lasted longer than usual, but the patient said she had never felt better in her life. By December there were only traces of exudate left, and what fluid the tubes previously contained had now been evacuated. Douches were not used in this last attack, yet improvement was quite as rapid as in the first.

This good result was by no means unique. Very possibly there would have been equally prompt relief under other treatment, but I have seldom seen cases like it do so well when other treatment has been employed.

Cases of chronic endometritis seen at comparatively long intervals were treated with pure ichthyol applied to the fundus, after a preliminary partial disinfection with lysol or creolin, and the relief from local pain and dragging was constant, and generally there was in a short time much less leucorrhœa. Of course very many obstinate cases finally came to curetting, but my impression is that as many, if not more, were cured or relieved than were by any other treatment. In no case was there any real pain from the application, *i.e.* that was not merely due to the passage of the applicator, or to the preliminary slight dilatation. It is to be remembered that cramps following the intra-uterine use of iodine are by no means rare. Pee spoke of hemorrhage sometimes following the intra-uterine use of ichthyol. I have not seen any such immediate effect, but in two cases the following catamenia were prolonged much beyond previous experience, an effect which had not followed the previous use of iodine, nor, on the other hand, had much improvement. Both these cases were subsequently practically cured by ichthyol. I have in mind several other cases previously treated by other gentlemen by the ordinary means which were promptly cured by ichthyol.

In packing adherent retroverted uteri it has been my custom to dip the first two pads in the ichthyol-glycerine solution. I am convinced that since I have done so I have

seen many such uteri loosen up and become replaceable that otherwise would have been very obstinate. Another advantage is that it being decidedly inimical to many forms of bacterial life, as shown by Fessler<sup>1</sup> and Abel,<sup>2</sup> when such a packing is removed it is much less offensive than the ordinary glycerine pack—except, of course, for its characteristic ichthyol odor. Here let me say that I have never had a gynecological patient complain of its odor. Purely as an antiseptic its value is not very great, but prolonged immersion in the pure drug destroys streptococci.

In erosions naturally the chief attempt has been to remove the cause, but in the cases where intra-uterine treatment was not adopted there was improvement, although perhaps no more marked than under other treatment.

I have not tried it in enough cases of gonorrhœa to form any opinion as to its value. In four the few times it was applied was followed by little result, while in a fifth obstinate case the very free leucorrhœa almost stopped after six applications to the endometrium, combined with daily lysol douches. To which is due the credit I am not certain. Lately it has been used quite extensively in the male urethra. I tried it in one case of female urethritis with no effect that I could see. This case promptly improved with nitrate of silver. The results of Bloch, Jadassohn, Columbini and Jullien warrant further experimentation in this direction.

I have used the salve and the pure drug in a number of cases of pruritus of the vulva and anus. There was improvement, but no cure in all. One severe case was painted extensively with a solution in collodion (1-8), and after the somewhat natural stinging had vanished relief was complete for some time.

<sup>1</sup> Fessler, *Klin. exper. Studien. uber chir. Krankheiten.*

<sup>2</sup> Abel, *Centralbl. fur Bakt. u. Parasit.,* 1893, XIV., No. 13.



In a few cases of painful hemorrhoids it seemed to relieve the discomfort by lessening the congestion.

The use of the collodion solution is most satisfactory in cracked nipples.

### CONCLUSIONS.

1. While ichthyol is by no means the gynecological panacea that some observers have claimed it to be, still it has sufficient approved value to deserve a very high place in our list of remedies.

2. That while its chief action is to relieve pain it does possess certain resorbent qualities, which in some cases are relatively powerful.

3. That its use is unattended with danger or discomfort.

4. That the use of the pure drug is generally more satisfactory and reliable than that of solutions.

5. That it has not yet been proven that it has any gynecological value other than as a local application.

Articles on the subject not referred to are:

Gadde, Beitrag z. Aus. u. In. Anwendung des Ichthyols. Ther. Monatshft. Berl., 1890, IV., 121.

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Ilinski, (Application of Ich. in Therapeutics, Surgery, Dermatology, and Gynecology), Moskow, 1892.

Cocq, Note Sur Ich. in Metrites. Clin. Brux., 1893, VIII., 180, 212.